

Message

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Subject: OPPT/OPP/OCSPP Daily Clips 4/25

OPPT/OPP/OCSPP Daily Clips

April 29, 2019

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[The National Law Review: EPA Publishes Draft Screening and Remediation Recommendations for Groundwater Contaminated with PFOA and PFOS](#)

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FIFRA

AgriBusiness Global

The Benefits of Underutilized Chemistry in Mint: Everything Old Is New Again

<https://www.agribusinessglobal.com/agricchemicals/the-benefits-of-underutilized-chemistry-in-mint-everything-old-is-new-again/>

Tom Wood

Posted: April 29, 2019

“Sooner or later, everything old is new again.” This quote, from Stephen King’s novel “The Colorado Kid,” has never been truer than in the use of herbicides in commercial and family farming. Certain weed pests – various strains of pigweed in particular – have begun to show resistance to currently popular post-emergent herbicides.

For farmers, the solution to combating these stubborn weeds has been a return to underutilized chemicals that predate relatively new treatments.

One such underutilized active ingredient is pyridate, a technology developed in the late 1990s. With growing reports across the U.S. of pigweed resistance to established formulations, farmers and regulators have begun to turn back again to previous treatments to handle weed infestation. (This is especially true for mint farmers, for whom the presence of pigweed in mint oil can result in price discounting from mint brokers or shipments being returned altogether.)

Consequently, pyridate has been reintroduced gradually to farmers. The EPA recently granted use of pyridate for a limited period under its Section 18 Emergency Use Exemption to the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA). The act gives the EPA authority to allow emergency exemptions for unregistered uses of pesticides to address emergency conditions.

It’s an indication of how pervasive herbicide-resistant pigweed and other broadleaf weeds has become that the EPA has turned again to a solution such as pyridate to control its infestation. For some farmers, the “old” chemistry has had impressive new results.

Preserving the Cash Value of the Yield

Setniker Farms is a large commercial farming operation located in Independence, OR. Depending on the season, Setniker Farms raises as many as a dozen different crops. According to Scott Setniker, mint is one of his largest crops.

Since its Section 18 designation, Setniker Farms has used pyridate for post emergence weed control in double cut mint. Pyridate has been extremely effective, Setniker said, at controlling pigweed as well as other broadleaf weed varieties.

Controlling weeds in the mint harvest is absolutely essential to the financial well-being of Setniker Farms, he explained. When mint is harvested, it is sent to Setniker’s customers who pull out samples and analyze them for residues and break down the analyzed samples by components — oil level, menthol and menthone, for example.

Odor tests are also performed at that time. “The presence of weeds in a sample will actually give off a ‘weedy’ smell,” Setniker said. His customers cannot tolerate that, Setniker noted, because it can discolor the mint and degrade the quality. “If it’s bad enough they may discount you severely,” he added.

Setniker Farms has relied on the same herbicides for many years and has begun to see issues in its mint crops, where certain weeds have built up resistance to those applications. “Pigweed, for example, used to be controlled by some

other herbicides, but not so much anymore,” said Setniker. Adding pyridate to the rotation, Setniker said weed control has improved “from 50-80% previously, to 95% or even 100% control today.”

While introducing pyridate to the regimen has improved the quality of the mint crop, it also has improved yield. With an effective herbicide spray regimen on a field otherwise infested with pigweed, Setniker has “definitely seen yield increase over existing treatments.”

Protecting an 80-year Farming Legacy

Shady Lane Farms General Partnership in South Bend, IN, is a family farm of approximately 5,000 acres. According to farmer Randy Matthys, his great-grandfather started farming around 1929, and moved the operation to the current Shady Lane location in 1938. Today, about 30% of Shady Lane’s total acres are devoted to mint.

Matthys uses a number of pre-emergent and post-emergent herbicides for broadleaf weed and grass control. While some of the pre-emergent treatments are effective, Matthys said, he has opted against their use because they can cause crop injury.

Shady Lane used pyridate as far back as the late 1990s and early 2000s, Matthys noted. He was relieved when pyridate was authorized for emergency purposes by the EPA.

Multiple weed species can be problems for Shady Lane Farms, including pigweed, waterhemp, lambsquarters, and marehail, Matthys noted. His opinion echoes Setniker’s on the importance of effective weed control on the quality of mint oil. If weeds end up in mint hay, Matthys noted, they can “carry off-notes into the oil,” which can cause buyers to discount the price of the oil, or in some cases reject it altogether.

Matthys said he learned how to use other products once his original pyridate treatment was no longer available in the 2000s. He is pleased to find ways to incorporate the herbicide again into Shady Lane’s crop protection program. Pyridate’s Section 18 approval came late in Matthys’ season last year, so it was used in a “rescue” capacity in July, applied to the second cut or to keep fields clean, he said.

Matthys noted that pyridate’s effectiveness is a compelling business benefit. “If you control weeds, you will see an increase in yield,” he said.

Rules of Thumb in Application

While pyridate is helping farmers improve the quality and the yield of their crops, success demands a regimented application strategy.

According to Setniker. “The most important thing to remember is to get it on early, when the weed leaves aren’t too big. I aim to apply it when weeds are at about six inches high. You will see nearly 100% control if you apply it early enough,” he said.

For Matthys, application would ideally begin the last week of May through June, and possibly into early July – at least 30 days prior to harvest, noting that the chemical is particularly effective on smaller weeds.

While pyridate is effective in mint farming, Matthys is also interested in broader uses of the product for other crops, such as corn. “It’s always good to have another tool in the shed to fall back on,” he explained.

With full EPA registration pending for pyridate, time will soon tell whether farmers will see the same benefits for other crops that have been realized in mint fields across the country. Certainly, where mint is concerned, the use of the underutilized active ingredient pyridate remains a decades old answer to a relatively new problem.

Glyphosate

Business Recorder

Bayer earnings slump as Monsanto lawsuits pile up

<https://fp.brecorder.com/2019/04/20190429468181/>

Staff

Posted: April 29, 2019

German chemicals giant Bayer said its first quarter net profit slumped by more than a third, as it booked a big charge amid a flood of lawsuits over its subsidiary Monsanto's Roundup weed killer. Hit by the legal entanglements and ongoing costs of integrating Monsanto, Bayer's first quarter earnings slumped 36 percent to 1.24 billion euros (\$1.38 billion).

Bayer, which bought Monsanto for \$63 billion in June last year, said it now faced lawsuits from 13,400 plaintiffs over the glyphosate weed killer in Roundup. It booked a charge of 51 million euros for "litigations and legal risks" in the first three months of 2019, up sharply from four million euros a year ago.

Of the looming Roundup lawsuits, Bayer stressed that it "continues to believe that it has meritorious defences and intends to defend itself vigorously in all of these lawsuits." Monsanto was ordered last month by a court to pay \$80 million to an American retiree who blames his cancer on the weed killer.

The verdict was the second stinging defeat for the company in recent months, after it lost a case to a California school groundskeeper suffering from terminal non-Hodgkin's lymphoma. It was initially ordered to pay \$289 million to the plaintiff in that case, before the damages were reduced to \$78.5 million. Bayer is appealing both rulings.

A third trial is underway in Alameda County, while another four are scheduled in Missouri and Montana for 2019, Bayer said. Beyond the legal woes, the cost of acquiring Monsanto is still clearly seen on the balance sheets with 492 million euros being spent on "acquisition and integration costs" and a further 393 million euros on "restructuring".

In November, Bayer said it would slash 12,000 jobs in a restructuring drive after the takeover of Monsanto. Despite the heavy costs, Bayer says it is "aiming" for an increase in overall earnings before exceptional charges such as litigation costs for 2019 to "approximately 12.2 billion euros".

Last month Bayer's CEO Werner Baumann stuck to his guns, insisting the huge Monsanto takeover was a "good idea", despite the huge legal costs piling up over its Roundup weed killer. "The Monsanto acquisition was and is a good idea," Werner Baumann told newspaper Frankfurter Allgemeine Sonntagszeitung, when asked if he might have changed his mind about buying the US group.

Chemical Watch

Expert Focus: The impact of the EU's glyphosate court ruling

<https://chemicalwatch.com/76719/expert-focus-the-impact-of-the-eus-glyphosate-court-ruling>

Olivia Jamison

Posted: April 29, 2019

Olivia Jamison, an environment law partner at CMS in London, examines the impact of the General Court of the European Union ruling in Heidi Hautala and Others v European Food Safety Authority.

On 7 March the General Court of the European Union ruled on two legal challenges concerning an EU body's refusal to allow access to studies relating to glyphosate.

Whilst relating to the chemical product's use as a plant protection product, the decision should be of wider interest. It is an important ruling for how all EU institutions should handle access to information requests, the meaning of "emissions to the environment" and a reminder of the balancing interests considered in such requests.

'It may serve as a reminder of the potential breadth of interpretation given to information relating to "emissions to the environment"'

Some may not be surprised by the approach and outcome, but for others it may serve as a reminder of the potential breadth of interpretation given to information relating to "emissions to the environment".

The background to the judgment and the key findings of relevance are set out below.

The background

In 2014 and 2017 two separate applications were made to the European Food Safety Agency (Efsa) to gain access to studies relating to the renewal of the active substance glyphosate pursuant to two European Regulations.

Firstly, Regulation (EC) No 1049/2001 of the European Parliament and of the Council of 30 May 2001 regarding public access to European Parliament, Council and Commission documents, (the Access to Documents Regulation) and secondly, Regulation (EC) 1367/2006 of the European Parliament and of the Council of 6 September 2006 on the application of the provisions of the Aarhus Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters to Community institutions and bodies (the Aarhus Regulation).

Both applications were rejected in part by Efsa and the applicants sought a ruling annulling those decisions.

The first application

An individual, Anthony C Tweedale, submitted a request for access to two "key studies" used in order to set glyphosate's acceptable daily intake (ADI). In refusing the request, Efsa decided that the studies were covered by an exception provided by the Access to Documents Regulation, relating to the protection of commercial interests, including intellectual property rights, and that their full protection was also the direct consequence of their classification as 'confidential' under the Aarhus Regulation.

Efsa considered that disclosure of the requested studies would reveal the owners' know-how relating to scientific expertise and their commercial strategy, including their know-how for the dossier compilation, and would undermine their commercial interests. Efsa decided that the public interest in having access to the scientific information relating to the safety of the active substance was fully satisfied by the publication of the public version of the renewal assessment report (available on the Efsa website).

When asked to reconsider its decision, Efsa stated that the requested studies did not constitute information which 'relates to emissions into the environment' for the purposes of the Aarhus Regulation and therefore disclosure did not override commercial interests.

Some time later, in 2017, Efsa adopted a new decision annulling and replacing the earlier decision and granting partial access to the requested studies. Efsa provided the raw data and findings of the requested studies considering that the confidentiality claims by the owners of those studies did not apply to that information.

However, Efsa considered that: (i) parts of the requested studies (ii) information relating to 'scientific know-how' and (iii) the annexes and other parts of the requested studies, including the protocols followed, were protected by the exception relating to the protection of commercial interests under the Access to Documents Regulation.

Efsa stated that it had weighed up the interests at stake in accordance with the regulations and had concluded that there was no overriding public interest in disclosure of the requested studies. It considered that information provided satisfied the public's need to be informed and made it possible to reproduce its assessment, whilst protecting the interests of the owners of the requested reports. Finally, Efsa considered that the parts of the requested studies which were not disclosed did not contain information concerning emissions in the environment, or any information concerning emissions or releases into, or their effect on the environment, and that the presumption of disclosure laid down in the Aarhus Regulation was therefore not applicable.

The second application

MEPs requested the studies used by Efsa to assess the carcinogenicity of glyphosate and its representative formulation in their entirety. The renewal of the approval of the active substance glyphosate was conditional on the outcome of the requested studies.

Amongst the disclosure, Efsa provided only partial access to the 12 'most crucial' studies for the peer review and its conclusion that glyphosate is unlikely to pose carcinogenic hazard to humans for largely the same reasons as in the Tweeddale case.

The rulings

The General Court found that EFSA infringed the Access to Documents Regulation and the Aarhus Regulation by failing to recognise that the requested studies could be classified as information which 'relates to emissions into the environment' for the purposes of the latter regulation.

'The application of the exception to disclosure based on the protection of commercial interests must be waived where there is an overriding public interest'

The application of the exception to disclosure based on the protection of commercial interests must be waived where there is an overriding public interest.

Under the Aarhus Regulation, an overriding public interest in disclosure is deemed to exist where the information requested 'relates to emissions into the environment'.

In arriving at its decisions the following points were noted:

- The developmental toxicity studies were used to renew the approval of the active substance. On the basis of the requested studies, the effects of exposure to glyphosate on human health were determined. The ADI being 'the estimate of the amount of substances in food expressed on a body weight basis, that can be ingested daily over a lifetime, without appreciable risk to any consumer on the basis of all known facts at the time of evaluation, taking into account sensitive groups within the population (eg, children and the unborn)'. Further, the no-observed adverse effect levels established made it possible to establish the 'acute reference dose' (ARfD), 'the estimate of the amount of substance in food, expressed on a body weight basis, that can be ingested over a short period of time, usually during one day, without appreciable risk to the consumer on the basis of the data produced by appropriate studies and taking into account sensitive groups within the population (eg, children and the unborn);
- The objective of the Aarhus Regulation is to ensure access to information concerning factors, such as emissions affecting or likely to affect elements of the environment, in particular air, water and soil. The concept of information which 'relates to emissions into the environment' cannot be limited to information concerning emissions actually released into the environment when the plant protection product or active substance in question is used on plants or soil, where

those emissions depend, on the quantities of product actually used by farmers and the exact composition of the final product marketed;

- Although the placing on the market of a product or substance is not sufficient in general for it to be concluded that that product or substance will necessarily be released into the environment and that information concerning the product or substance 'relates to emissions into the environment', the situation is different as regards to a product such as a plant protection product, and the substances which that product contains, which, in the course of normal use, are intended to be released into the environment by virtue of their very function. In that case, foreseeable emissions, under normal or realistic conditions of use, from the product in question or from the substances which that product contains, into the environment are not hypothetical and are covered by the concept of 'emissions into the environment';
- Information which 'relates to emissions into the environment' is not limited to information which makes it possible to assess the emissions as such, namely information concerning the nature, composition, quantity, date and place of those emissions, but also data concerning the medium to long-term consequences of those emissions on the environment;
- Information which 'relates to emissions into the environment' is not limited to information which makes it possible to assess the emissions as such namely information concerning the nature, composition, quantity, date and place of those emissions, but also data concerning the medium to long-term consequences of those emissions on the environment; and
- For the studies to be classified as information which 'relates to emissions into the environment' for the purposes of the Aarhus Regulation, what matters is not so much the conditions in which those studies were carried out, in particular whether or not they were carried out in a laboratory, but their purpose.

The implications

The General Court held that the public interest in accessing information on emissions into the environment is specifically to know not only what is, or foreseeably will be, released into the environment, but also to understand the way in which the environment could be affected by the emissions in question.

The General Court's rejection of Efsa's tightly drawn definition of "emissions into the environment" and interpretation of it to include data concerning the medium to long-term consequences of those emissions on the environment will give future applications for access to information greater leverage and result in increased disclosure of supporting studies.

The Nation

Bayer asks California appeals court to throw out \$78m Roundup verdict

<https://thenationonlineng.net/bayer-asks-california-appeals-court-to-throw-out-78m-roundup-verdict/>

Staff

Posted: April 29, 2019

Bayer AG has asked a California appellate court to throw out a \$78 million judgment it was ordered to pay to a school groundskeeper who claimed the company's weed killers gave him cancer.

In a filing in California's Court of Appeal, First Appellate District, the company said that there was "no evidence" that glyphosate, a chemical found in the company's Roundup and Ranger Pro products, could cause cancer.

"Bayer stands behind these products and will continue to vigorously defend them," the company said in a news release.

The widely-used weed killers are made by Monsanto, which Bayer acquired last year for \$63 billion.

The company said that if the court did not rule in its favor, it should at least order a new trial, arguing that a lower court judge had improperly prevented jurors from hearing evidence that the U.S. Environmental Protection Agency and foreign regulators had deemed glyphosate not likely carcinogenic to humans.

A lawyer for the groundskeeper, Dewayne Johnson, could not immediately be reached for comment.

Johnson sued Monsanto in 2016. In August, last year, following a trial in the Superior Court of California in San Francisco, a jury awarded him \$39 million in compensatory damages and \$250 million in punitive damages, a total of \$289 million.

The verdict, which marked the first such decision against Monsanto, wiped 10 percent off Bayer's value, and shares have since dropped nearly 30 percent from their pre-verdict value.

Judge Suzanne Bolanos, who oversaw the trial, then issued a tentative opinion saying she planned to strike the entire punitive damages award because there was no evidence Monsanto acted with malice. Following a hearing last October, she instead cut the award to \$39 million, for a total judgment of \$78 million.

In another brief filed with the appeals court, Bayer said the decision came after newspaper articles and emails from five jurors in the case meant to "pressure" Bolanos to uphold the punitive damages award.

Bayer, which faces more than 11,000 U.S. lawsuits over glyphosate, says decades of scientific studies and real-world use have shown glyphosate to be safe for human use.

While the EPA and regulators from several other countries have said glyphosate was not likely to cause cancer, the cancer unit of the World Health Organisation in 2015 classified glyphosate as "probably carcinogenic to humans."

Politico

Glyphosate revolt rocks Germany Inc.

<https://www.politico.eu/article/glyphosate-revolt-rocks-germany-inc-bayer-shareholders-vote/>

Simon Marks, Eddy Wax, Maxime Schlee

Posted: April 27, 2019

You can't blame the Americans at Monsanto any more. Europe's most politically inflammatory chemical — the ubiquitous weedkiller glyphosate — is now well and truly a German problem.

Shareholders of the German chemical giant Bayer staged a full-blown revolt at a heated 13-hour meeting in Bonn on Friday, arguing that the management failed to see the company was inheriting a raft of nightmarish litigation associated with glyphosate when it bought [U.S. agrichemical giant Monsanto](#) for \$66 billion last year.

The investors are furious that a blue-riband European company is now potentially exposed to billions of dollars of claims over the glyphosate-based weedkiller Roundup, created by Monsanto. Two U.S. court verdicts over the past year found that the world's most popular herbicide caused cancer, hauling shares in Bayer down about 40 percent since August. Bayer has appealed those decisions but is now facing an avalanche of some 13,400 claims.

Ultimately only 44.48 percent of shareholders on Friday backed the management board headed by Chief Executive Werner Baumann. While the vote has no binding power, this is a huge reversal from the 97 percent support the board won last year. Support of only 61 percent from shareholders was enough to dislodge joint chief executives at Deutsche Bank in 2015.

"It is about time Bayer came to grips with the fact that they purchased Monsanto's misconduct and, now, need to do right by the victims. It's time to resolve these lawsuits and give Bayer shareholders confidence again in corporate

leadership," said Brent Wisner, an attorney at Baum, Hedlund, Aristei & Goldman, which is representing plaintiffs in the lawsuits against Monsanto.

"I don't understand how the company did not understand what was going to happen" — *Eric Andrieu, French Socialist MEP*

Glyphosate is one of the most hotly debated political topics across Europe. Farmers insist it is vital to preserve yields of everything from carrots to potatoes, while environmentalists argue that it is a potential carcinogen and damages soil.

The European Commission has appointed the food safety authorities in France, Hungary, the Netherlands and Sweden to re-evaluate its safety and EU countries will vote on whether to reapprove the substance by the end of 2021. In the meantime, countries such as Germany are weighing up the best way to reduce usage. This is, however, contentious and the German agricultural and environment ministries have been at loggerheads over how fast to slash pesticide usage.

"We want an EU-wide ban after the current five-year EU admission has ended. Until then, it should only be used under certain conditions in order to avoid intolerable impacts on biodiversity," said Nikolai Fichtner, a spokesperson for the German environment ministry. The agriculture ministry said that it is working closely with the environment ministry to work out a reduction plan "in the near future."

Sound science

Bayer's management argues that the furor is unscientific and that glyphosate poses no danger. Chief Executive Baumann sought to forestall the shareholder revolt in Bonn on Friday morning by saying: "We were convinced at the time — and we are today — that glyphosate is a safe product when used as directed. That view is based on science and on the practical experience of farmers over a period of more than 40 years."

"The plaintiffs' attorneys in the United States wrongly claim that glyphosate-based products are carcinogenic and that Monsanto knowingly exposed its customers to this risk ... These really are quite incredible accusations," he added.

Chairman Werner Wenning reiterated that stance in a statement Saturday, in which Bayer's supervisory board threw its support behind Baumann and his team.

Eric Andrieu, a French Socialist lawmaker in the European Parliament, who also heads the institution's committee on pesticides, said it is hard to understand the company's position. "The fact that Bayer absorbed Monsanto while there were so many litigations ongoing in America, I don't understand how the company did not understand what was going to happen," he said. "I absolutely understand the concern among Bayer's shareholders."

Net profit at Bayer during the first quarter of 2019 fell by 36.5 percent to €1.2 billion compared to the same quarter in 2018 owing to costs linked to the Monsanto acquisition, the company announced on Thursday.

Onto the barricades

People attending the shareholder meeting said the discussions centered on widespread concern linked to the company's decision to merge with Monsanto.

A representative for Deutsche Schutzvereinigung für Wertpapierbesitz, a leading association for private investors, told Friday's meeting that the litigation in the U.S. represents corporate risk amounting to €100 billion and questioned whether sufficient due diligence was done when acquiring Monsanto.

"We as investors see Bayer as being confronted with claims for damages and a massive reputational damage, which is reflected in stock prices ... The risks for us as shareholders are already enormous and incalculable," the representative told the annual meeting, according to a voice recording obtained by POLITICO.

"The acquisition of Monsanto and the wave of lawsuits related to it heavily burden the company. Here the question arises whether due diligence was really in every respect extensively [carried out]," the person added.

"Why is Bayer giving itself the bee-killer image?" — *Christopher Koch, beekeeper*

A Bayer employee in the audience countered the concerns saying: "I think that the entire absurdity of the process and this lawsuit industry in the U.S. receives too little attention. To question the entire deal on this basis seems quite unfair to me."

The annual meeting was also addressed by Christoph Koch, a beekeeper, who accused shareholders of contributing to a decline in bee life across Europe due to the use of pesticides. "By now we're talking about insect deaths of a gigantic scale. You, ladies and gentlemen, have a certain stake in this."

"Why is Bayer giving itself the bee-killer image?"

Lead

Michigan Radio

Lead levels in three Michigan municipal water systems back in line with federal standards

<https://www.michiganradio.org/post/lead-levels-three-michigan-municipal-water-systems-back-line-federal-standards>

Lindsey Smith

Posted: April 28, 2019

After the Flint water crisis, the state's environment department closed a bunch of loopholes in the sampling for lead in drinking water. That means cities are taking better samples, more frequently, and at the highest risk homes with lead service lines.

The Detroit suburbs of Romulus and Beverly Hills were knocked above the acceptable level for lead in water in the fall of 2017. That's mainly because one house in each city tested so high that it pushed each community's numbers above the federal level.

Since then, Beverly Hills has done hundreds more water samples and is back under the action level for lead. Village data shows almost all of the homes sampled had copper service lines.

In Romulus, documents obtained under the Freedom of Information Act show several more homes tested high for lead in 2018. One sample got up to 996 parts per billion.

The federal “action level” for lead is 15 ppb. That’s a water treatment standard, a calculation gauging how corrosive a town’s water is to the pipes that bring drinking water into homes. It’s not a health standard. Health officials say no amount of lead in water is considered safe.

But the city’s overall 90th percentile for lead in drinking water was down to seven ppb by the end of 2018.

In the Upper Peninsula, Houghton made a slight change to the way it treats its water. That city too is now back below acceptable levels of lead in drinking water.

But now there are other cities that will have to complete this extensive testing this year. Hamtramck, Benton Harbor, Lawrence and Parchment tested high for lead in water in 2018.

Weather Channel

Flint Water Crisis: Five Years Later, There’s Still No Trust

<https://weather.com/news/news/2019-04-29-flint-michigan-water-crisis-still-no-trust>

Ron Brackett

Posted: April 29, 2019

- The city of Flint's water came from the Flint River for 18 months.
- Improper treatment let lead leach from pipes into residents' tap water.
- Fifteen current and former city and state officials were charged with crimes.
- Tests say the city's water is now safe, but residents still use bottled water.

Five years ago, water from the Flint River began flowing through the city of Flint's pipes and into residents' homes.

The improperly treated water caused the old pipes to corrode and leach lead into the drinking water of almost 100,000 people. The water was cloudy, foul smelling and had a metallic taste.

Eighteen months later — after lead levels in children were already rising — officials switched the Michigan city back to Detroit's pre-treated water from Lake Huron.

Even though five years have passed and tests show the water is safe, residents still won't drink it, cook with it or bathe in it, according to a report by M-Live/The Flint Journal.

The Rev. Monica M. Villarreal, a pastor at Salem Lutheran Church, won't even use it for baptisms.

“I don’t trust the tap water,” Villarreal told mlive.com. “We still have some major projects that have to happen before I do.”

(MORE: America’s 10 Most Endangered Rivers for 2019)

Agustin Arbulu, director of the Michigan Department of Civil Rights, told the Earther blog, "Trauma like this where water is contaminated, and people's lives are affected at all ages, all races, all ethnicities, all genders is not something that disappears. And for this community, it is not something that goes away easily. The distrust continues."

Fifteen current and former city and state officials have been charged with crimes in Flint's water crisis. Seven people have plead no contest to misdemeanors as parts of plea deals, the New York Times reported, but no one has been sentenced to prison. Eight cases are pending.

Flint's new mayor, Karen Weaver, tells city residents to still use only filtered or bottled water.

"It's a community that's still dealing with the trauma and the aftermath of having been poisoned at the hands of the government," Weaver told the Times.

"We don't trust," she said. "Trust was broken on every single level of government."

(MORE: Drought-Plagued Rio Grande at a 'Complete Turnaround' from Last Year, Water Managers Say)

One big blow to trust was the revelation, after the city switched back to Detroit water, that a Legionnaires' disease outbreak had killed at least 12 people during the switch. Two studies linked the illness to the change in water, the Detroit News reported, but the Michigan Department of Health and Human Services disputed the results.

Last year, Michigan's then-Gov. Rick Snyder cut off funding for free bottled water because of consistent testing showing reduced lead levels in Flint's water. Many residents now rely on water donated by Nestle Waters North America or local civic and church groups.

The city has replaced almost 8,000 lead and galvanized-steel water service lines. Since 2016, more than 20,000 lines have been inspected. Eric Schwartz, a University of Michigan professor, estimates there are 7,500 service lines to be checked still, and about 2,500 of those may have lead, according to Michigan Radio.

Flint officials hope to have all lead and galvanized pipes replaced by the end of 2019.

When all the lead pipes are replaced, Flint's residents will get the all-clear to use their tap water again, mlive.com reports.

U.S. Rep. Dan Kildee says that may not be enough to regain residents' trust.

"The reason people in Flint don't trust us is because they were lied to," Kildee told mlive.com. "I don't think it's reasonable for anyone to expect the people of Flint just to get over that just because the pipes are being fixed."

Pesticides

The Columbian

Don't stress over pesticides-on-produce list

<https://www.columbian.com/news/2019/apr/29/dont-stress-over-pesticides-on-produce-list/>

Susan Selasky

Posted: 6:05am, April 29, 2019

A recent column on the Environmental Working Group's list of fruits and vegetables with the most and least pesticides generated some reader comments. Most wondered if washing eliminates any pesticides residue.

While the EWG said washing doesn't remove the fruit and produce from their list, it's still recommended to wash all fruits and vegetables.

What's important to reiterate is the overall goal is for Americans to increase their consumption of fruits and vegetables for a healthy, well-balanced diet. While the EWG's list is based on USDA data, the USDA says the residues detected are below "benchmark levels established by the Environmental Protection Agency."

The Alliance for Food and Farming, which represents organic as well as conventional farmers, also drives home the point of consuming more fruits and vegetables.

"There are many ways to promote organic produce without resorting to disparaging the more accessible forms of fruits and veggies that the science has repeatedly shown are safe," says AFF Executive Director Teresa Thorne in an email.

Thorne said that lists like this can "negatively impact consumers' purchasing of both organic and conventional produce."

The AFF also points out that just because something has pesticide residues on food does not mean they are harmful. To help consumers, the AFF provides an easy-to-use risk calculator at www.safefruitsandveggies.com for pesticides.

Once you click on the calculator and choose if you're a man, woman, teen or child, a list of fruits and vegetables pop up. Click on the vegetable and what comes up is the amount of servings a person could eat in one day having no effect even if it had the "highest pesticide residue recorded by the USDA." There's a combination of 19 fruits and vegetables shown from apples to kale to spinach and strawberries. For example, a woman could theoretically consume 774 servings of spinach in one day without risk.

The federal Food and Drug Administration recommends washing fruits and vegetables before eating. Not only is it good practice, but, they say, it can reduce and often eliminate residues.

Here are a few preparations listed at www.fda.gov.

Begin with clean hands. Wash your hands for 20 seconds with warm water and soap before and after preparing fresh produce.

Cut away any damaged or bruised areas on fresh fruits and vegetables. Produce that looks rotten should be discarded.

All produce should be thoroughly washed before eating. Wash fruits and vegetables under running water just before eating, cutting or cooking.

Many pre-cut, bagged produce items like lettuce are pre-washed. If the package indicates that the contents have been pre-washed, you can use the produce without further washing.

Even if you plan to peel the produce before eating, it is still important to wash it first.

Washing fruits and vegetables with soap or detergent or using commercial produce washes is not recommended.

Scrub firm produce, such as melons and cucumbers, with a clean produce brush.

Drying produce with a clean cloth towel or paper towel may further reduce bacteria that may be present.

Vinegar bath for berries

On a separate note, with highly perishable berries, one method for helping them stay fresh longer is to soak them in a vinegar bath. And don't worry, they won't taste like vinegar. This reportedly helps destroy bacteria and mold spores. Cared for this way, strawberries can last up to two weeks and raspberries a good week.

Here's what you need to do:

Make a solution of 3 cups water to 1 cup white vinegar.

Place the berries in a bowl and cover with the water/vinegar solution.

Let sit 5 minutes. Drain and rinse the berries.

Place on paper towel to dry.

To store, line a container with paper towel and place the berries in the container. This will absorb any more moisture.

Financial Post

Before you attack farmers for pesticides, try feeding the world without them

<https://business.financialpost.com/commodities/agriculture/before-you-attack-farmers-for-pesticides-try-feeding-the-world-without-them>

Toban Dyck

Posted: 6:00am, April 29, 2019

In a public opinion study released at the end of March by the non-profit Canadian Centre for Food Integrity (CCFI), pesticides, climate change and genetically modified food ranked as the most discussed agricultural topics on social media between January 2017 and January 2019.

Perhaps not surprisingly, climate change and genetically modified foods led the way, with more than two million Canadians mentioning them during those periods.

But while pesticides trailed at 1.08 million mentions, it's what people were saying about them that stood out.

These chemicals helped my grandparents grow better crops, in a more efficient manner

According to the study, 59 per cent of conversations related to pesticides connected the chemicals to farmers. Only one per cent made the connection to chemical companies.

"Farmers are associated with these technologies," read the report, whose findings were noted in the Western Producer on the day of their release. "Farmers are the front line and wear the issue when it comes to public opinion."

Farmers did not create pesticides. They use them, though. And they were and are a welcome crop production tool.

These chemicals helped my grandparents grow better crops, in a more efficient manner. It's a sentiment that persists, so much so that it's difficult for growers to imagine their absence.

- [Agricultural sector buckling in for a period of tight margins, volatile markets and consumer opposition](#)
- [The media needs to do better: Inflaming the glyphosate debate doesn't help anyone](#)
- [China's canola embargo once again turns Canadian farmers into political footballs](#)

There may be a way to farm and meet global protein demands without the use of synthetic (person-made) pesticides. I don't know what that would look like, but the shift would be seismic and very disruptive, effectively dismantling a

worldview that both has the backing of most of the scientific community and the strong foundation of generations worth of tradition.

Few farmers enjoy putting on facemasks and gloves to mix chemicals. But what they dislike even more is being told they're poor stewards or they're irresponsible for doing something that, for generations, has helped them survive in a business that is dictated by the food-consumption trends of those now casting the stones.

If the expectation is for the agricultural community to absorb this blow, reconsider its practices and then change them at a time when margins are tight and large farms with a lust for growth are circling overhead ready to swoop at the first sign of red, then this fight against modern farming will rage on for a long time.

Synthetic pesticides were the promise of the 1940s, the decade in which they began becoming available to farmers. They replaced a limited catalogue of inputs, some of which were made from the by-products of industrial processing such as coal gas production.

In the Encyclopedia of Pest Management, Rajinder Peshin of Sher-e-Kashmir University writes, "Though pesticides are not yield-enhancing chemicals like fertilizers, they reduce the damage caused by insect pests, diseases and weeds. It is estimated that each dollar invested in pesticide control gives a benefit of approximately \$4 in crops saved, and overall losses to pests would increase by 10 per cent if no pesticides were used at all and specific crop losses would range from zero to 100 per cent."

That threat of famine, present throughout the history of civilization, has been an tangible incentive for the development of chemicals with which to mitigate potential crop loss. Those incentives, while less obvious in many parts of North America, persist today.

And it's at this point where context is important. This brief history of pesticide use is far from exhaustive, and it's not meant to be. It is, however, a critical bit of background in order for the public to better empathize with farmers and understand both our frustration over the rally against pesticides and the sometimes gruff way in which we engage on this issue.

If change is to be forced upon the agricultural community, it should be seamless. If the tools many still associate with progress are to be taken away, alternatives just as effective should be presented, without judgment or rebuke for what was used before.

PsychiatryAdvisor

Prenatal and Infant Pesticide Exposure Associated With Autism Spectrum Disorder

<https://www.psychiatryadvisor.com/home/topics/autism-spectrum-disorders/prenatal-and-infant-pesticide-exposure-associated-with-autism-spectrum-disorder/>

Emily Pond

Posted: April 29, 2019

Prenatal exposure to ambient pesticides increases the risk for [autism spectrum disorder](#) (ASD) in children, per study results published in the *British Medical Journal*.

Investigators obtained the records of patients with ASD from the California Department of Developmental Services. Data collection included patients with comorbid intellectual disability. Each case was matched with their respective birth record extracted from the Office of Vital Statistics. Randomly selected control records were matched to each case 10:1 by birth year and sex. The California-mandated Pesticide Use Reporting system was used to develop a geographic information system tool. Residential birth addresses, as listed on birth certificates, were geocoded to estimate prenatal and infant exposure to pesticides. The study examined 11 high-use pesticides based on prior implication in neurodevelopmental toxicity. Logistic regression analyses were conducted to estimate the association between ASD and each exposure.

A total of 2961 individuals with ASD, including 445 with intellectual disability, were matched with 35,370 controls. Sociodemographic characteristics were similar in both groups, and the majority of participants (81.2% to 82.6%) were men.

The risk for autism spectrum disorder in all cases was associated with prenatal exposure to glyphosate (odds ratio [OR], 1.16; 95% CI, 1.06 to 1.27), chlorpyrifos (OR, 1.13; 95% CI, 1.05-1.23), diazinon (OR, 1.11; 95% CI, 1.01-1.21), malathion (OR, 1.11; 95% CI, 1.01-1.22), avermectin (OR, 1.12; 95% CI, 1.04-1.22), and permethrin (OR, 1.10; 95% CI, 1.01-1.20). In a similar fashion, the risk for autism spectrum disorder with intellectual disability increased with prenatal exposure to glyphosate (OR, 1.33; 95% CI, 1.05-1.69), chlorpyrifos (OR, 1.27; 95% CI, 1.04-1.56), diazinon (OR, 1.41; 95% CI, 1.15-1.73), permethrin (OR, 1.46; 95% CI, 1.20-1.78), methyl bromide (OR, 1.33; 95% CI, 1.07-1.64), and myclobutanil (OR, 1.32; 95% CI, 1.09-1.60). Exposure during the first year of life was associated in a similar fashion with ASD with intellectual disability; odds of diagnosis were particularly pronounced for glyphosate (OR, 1.34; 95% CI, 1.03-1.74) and permethrin (OR, 1.31; 95% CI, 1.07-1.62) exposure.

"Further research should be translational and integrate experimental and epidemiological approaches to further elucidate underlying mechanisms in the development of the disorder," researchers concluded.

Science Magazine

Sticky proteins could protect crops more safely than chemical pesticides

<https://geneticliteracyproject.org/2019/04/29/sticky-pesticides-could-protect-crops-cut-harmful-agricultural-runoff/>

Erik Stokstad

Posted: April 25, 2019

Many pesticides have an inherent weakness: The active ingredients don't adhere well to the plants they protect. After the chemicals are sprayed onto crops, rain can wash them off into the soil and groundwater. Farmers must spray again and hope for dry weather.

Now, researchers have devised a stickier approach to protecting plants, one that could be applied less frequently than chemical pesticides and might be less toxic. They have designed a molecule with two separate chains of amino acids, called peptides. One peptide embeds itself in the waxy surface of a leaf, holding tight in the rain; the other juts out like a

spear to attack microbial pests. In a proof of concept published this month in *Green Chemistry*, lab tests showed the molecules lessened symptoms of soybean rust, a dreaded fungus that causes one of the world's worst agricultural diseases.

The peptides will face many challenges before they can reach the market. But plant pathologists say they could be a flexible new way to protect crops. "With the current scale of the soybean rust problem, and the rapid evolution of resistance against multiple fungicides, any addition to the toolbox would be welcome," says Nichola Hawkins at Rothamsted Research in Harpenden, U.K. Ralph Hückelhoven at the Technical University of Munich in Germany also considers the technique promising. "It opens a treasure box of solutions," he says. "It's a bit surprising that no one has done this before."

Top of Form

Bottom of Form

To make the new pesticide, plant pathologist Uwe Conrath and protein engineer Ulrich Schwaneberg of RWTH Aachen University in Germany teamed up. Schwaneberg specializes in the directed evolution of peptides—adding genes to microbes to produce them, for example, and relying on rounds of mutation and selection to develop strains that produce peptides with improved traits. He has created peptides that attach to slick surfaces such as polypropylene. The team found two that also anchor themselves onto soy leaves.

Attaching a fluorescent protein to the anchor peptides showed that about 60% to 70% of the leaf remained covered with them, even after the plant was doused in a rain simulation chamber. These two anchor peptides also clung well to the leaves of barley, corn, blueberry, and other crops. Schwaneberg says they can be engineered to adhere more or less tightly, as desired.

The next step was to attach an antimicrobial peptide to the anchor. The team chose dermaseptin, a peptide discovered years ago in the skin of tree frogs. Dermaseptin attacks a broad array of microbes, including bacteria and fungi, somehow rupturing their cell membranes. Conrath notes that pathogens are much less likely to evolve resistance—a problem with chemical pesticides—because it is difficult to change the basic structure of cell membranes.

When tested on glass slides, the fused peptide was about as effective against soybean rust spores as chemical fungicides. But in lab tests on plants, the peptide reduced symptoms of rust by only about 30%. "It's not enough," says Emilio Montesinos, a plant pathologist and agronomist at the University of Girona in Spain. "If you want to extend these results for crop protection, you need to do much more work." Conrath thinks a tactic already used by industry for other pesticides could yield more potent peptides: adding chemicals to distribute them evenly across leaves.

He acknowledges that the peptides are only at the beginning of the pesticide development process, which can last a decade and cost \$200 million on average. RWTH Aachen has patented the concept, and Conrath and Schwaneberg plan to start a company to pursue deals with large pesticide manufacturers. They will need help lowering the cost of making the peptides. One way—engineering microbes to produce the peptides themselves in industrial vats—can be tricky when the desired protein tends to kill the microbes that make it.

Another question is safety. Dermaseptin would need to be evaluated for its possible toxicity to humans, as well as the accidental harm it could cause to beneficial insects, fungi, or microbes. "It's broad-spectrum and it's persistent, and that creates a regulatory concern," says Roma Gwynn, who runs Rationale, a pesticide consultancy in Duns, U.K.

Studies indicate that dermaseptin does not harm mammalian cells, and any residues could be removed by washing the plant product with enzymes. Microbes would likely break down peptides remaining in the fields, Conrath says.

As for target pathogens, the team is already thinking beyond soybean rust. They have showed that dermaseptin-based peptides can help protect maize from the common fungus *Colletotrichum graminicola*. They also want to try attaching the anchor peptide to *Bacillus thuringiensis*, or *Bt*, a insect-killing microbial toxin widely used by organic farmers and engineered into transgenic crops.

Before that, however, Conrath and Schwaneberg plan to outfit their anchors with tiny amounts of copper, commonly used by vineyards and organic farms to fight fungi and other pathogens. This fall, with a €1 million grant from Germany's Federal Ministry of Food and Agriculture, the team will test the approach in vineyards in southern Germany, which could reduce copper spraying and the runoff that contaminates soil. They're hoping the idea will stick.

NBC News

States weigh banning a widely used pesticides even though EPA won't

<https://www.nbcnews.com/health/health-news/states-weigh-banning-widely-used-pesticide-even-though-epa-won-n998096>

By: Ana Ibarra, California Healthline, Kaiser Health News

Posted: 12:47pm, April 28, 2019

Lawmakers in several states are trying to ban a widely used pesticide that the Environmental Protection Agency is fighting to keep on the market.

The pesticide, chlorpyrifos, kills insects on contact by attacking their nervous systems.

Several studies have linked prenatal exposure of chlorpyrifos to lower birth weights, lower IQs, attention deficit hyperactivity disorder and other developmental issues in children. But the EPA in 2017 ignored the conclusions of its scientists and rejected a proposal made during the Obama administration to ban its use in fields and orchards.

Hawaii was the first state to pass a full ban last year. Now California, Oregon, New York and Connecticut are trying to do the same.

Should California succeed, the rear-guard action could have a big impact.

"If California is successful, that's a big deal because it's such a big state — the biggest agricultural state," said Virginia Ruiz, director of occupational and environmental health at the Washington, D.C.-based nonprofit Farmworker Justice.

Earlier this year, congressional Democrats also introduced bills to ban the pesticide nationally, but experts believe states are more likely to succeed than Congress. Sen. Kirsten Gillibrand (D-N.Y.), who is running for president, introduced a separate bill last week that would prohibit schools from serving fruits and vegetables sprayed with the pesticide.

"I don't see this as something we should still be debating," said Irva Hertz-Picciotto, an epidemiologist and director of the Environmental Health Sciences Center at the University of California-Davis.

Hertz-Picciotto testified during a California Senate Health Committee hearing April 10 on California's bill to ban use of the pesticide. She said more than three dozen studies have demonstrated a connection between prenatal exposure of chlorpyrifos and developmental disabilities, including symptoms of autism.

"No study has identified a level at which we can consider it safe," she told lawmakers.

Almost two decades ago, the EPA, which regulates pesticides at the federal level, ordered chlorpyrifos for residential use off the market. But the chemical still is used on crops — including citrus, almonds and grapes — and on golf courses and other non-agricultural settings.

Globally, several companies make chlorpyrifos products. In the U.S., the most recognized brand names are Dursban and Lorsban, manufactured by Corteva Agriscience, formerly known as Dow AgroSciences.

Under the administration of President Barack Obama, the EPA in 2015 proposed a complete ban of chlorpyrifos, citing evidence of health risks. But in 2017, President Donald Trump's EPA administrator, Scott Pruitt, declined to ban it.

"Despite several years of study, the science addressing neurodevelopmental effects remains unresolved," the EPA says on its website. The agency did not return requests for comment.

Then the 9th U.S. Circuit Court of Appeals ordered the pesticide completely off the market last summer. The EPA is fighting that decision.

"The EPA is contradicting the findings of its own scientists," said Aseem Prakash, the director of the Center for Environmental Politics at the University of Washington.

Prakash accused the EPA of serving the interests of the chemical industry over people's health.

"It's bizarre," he added. "We have the research."

The manufacturers see it differently. Carol Burns, a retired epidemiologist with the Dow Chemical Company, which began manufacturing chlorpyrifos in 1965, is now a consultant for Corteva Agriscience. Burns said during the California Senate hearing that many studies link neurodevelopmental problems in children with the chemical compounds known as organophosphates, but not chlorpyrifos specifically.

"Chlorpyrifos is an organophosphate, but not all organophosphates are chlorpyrifos," she said. The science, she argued, is not clear-cut.

Besides, she added, some of those studies focused on children born in the late 1990s and early 2000s. Since then, children face less exposure to the chemical as a result of increasing restrictions on its use, Burns said.

Neither Corteva Agriscience nor the California Farm Bureau Federation would comment for this story.

Chlorpyrifos can be inhaled during application and as it drifts into nearby areas, or ingested as residue on food. People also can be exposed through their drinking water if their wells have been contaminated.

Brief exposure can result in dizziness, nausea and headaches, while more acute poisoning can cause vomiting, tremors and loss of coordination, according to the National Pesticide Information Center.

"The EPA is contradicting the findings of its own scientists."

But long-term exposure, even at low levels, is considered more harmful, especially for young, developing brains. A 2014 study by Hertz-Picciotto and other UC-Davis researchers found that pregnant women who lived near fields treated with chlorpyrifos, primarily during their second trimester, had an elevated risk of giving birth to a child with autism spectrum disorder.

Fidelia Morales has lived in Lindsay, Calif., a small town in Tulare County, for 12 years. Her home is surrounded by orange groves, and the skunky stench of freshly sprayed pesticides often drifts inside, especially during the summer, she said.

The more she learns about chlorpyrifos, the more she wonders whether it played a role in her 11-year-old son's behavioral issues. His teachers routinely complain about his inability to focus and sit still in class, she said. In fourth grade, he was reading at a second-grade level.

"I used to walk to the groves when I was pregnant — I had no idea that I could be exposing myself and my baby," she said. "The irony is I left Los Angeles in part to get away from all the pollution. I had no idea I'd end up somewhere worse."

Morales wants the pesticide banned.

But farmers told lawmakers during the health committee hearing that the state already restricts the use of chlorpyrifos through the Department of Pesticide Regulation. Any additional restrictions should be left to the department, they urged.

Based on the department's earlier recommendations, all California counties this year agreed to set strict restrictions on chlorpyrifos' application.

The restrictions include a ban on aerial spraying. For ground-based applications, farmers cannot apply the pesticide within 150 feet of houses, businesses and schools. The department considers the pesticide a "toxic air contaminant," and believes the new restrictions will reduce its use, said spokeswoman Charlotte Fadipe.

The use of chlorpyrifos in the state has declined by half in the past decade, she said.

Angel Garcia, a community organizer in Tulare County with the group Californians for Pesticide Reform, said the new restrictions aren't tough enough.

Those who face the most risk are largely the low-income people of color who live in agricultural areas, he said.

The restrictions "fall short of creating significant health protections," he said.

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PFOA/PFOS/PFAS

Michigan Advance

Oscoda residents vent to Air Force brass about PFAS worries

<https://www.michiganadvance.com/2019/04/27/oscoda-residents-vent-to-air-force-officials-about-pfas-worries/>

Michael Gerstein

Posted: April 27, 2019

Beneath the natural beauty of Clark's Marsh in Oscoda lurks some of the highest concentrations of toxic chemicals from firefighting foam in the state.

The Huron National Forest destination north of Michigan's Thumb was once popular for hunting and fishing. Now it's covered with metal signs riddled with bullet holes and messages warning locals not to eat the fish or deer.

The forest sits next to the now-defunct Wurtsmith Air Force base, from which a plume of toxic chemicals has spread to the nearby Au Sable River, Van Etten Lake and Clark's Marsh, as well as more than 200 homes connected to private drinking water wells.

"I almost want to call it biological warfare on their own people," said Oscoda Township Supervisor Aaron Weed, who spent 22 years serving in the U.S. Air Force at bases in Oklahoma, Texas and North Carolina, before settling in Michigan about eight years ago.

Weed said he perceives it as "deliberate action on their part to slow down and avoid" cleanup, which is "almost the same thing."

Top Pentagon officials, on behalf of the Air Force, met with Weed during a public town hall-like public comment session on Wednesday at the Oscoda Community Center.

Residents aired their anger and frustration with the plodding pace at which Air Force officials have addressed the problem.

Air Force response

Wurtsmith Air Force base closed in 1993. It still may take at least another four years before the Air Force can begin acting on a formal cleanup plan for the area.

That's according to Air Force Assistant Secretary John Henderson, who came to Oscoda from Washington, D.C., at the [invitation](#) of U.S. Sen. Gary Peters (D-Bloomfield Twp.).

Henderson said the Air Force is "about halfway through" monitoring, testing and analyzing a large plume of per- and polyfluoroalkyl pollution known as PFAS that has affected the township's groundwater.

Two of the most common chemicals in Oscoda and elsewhere in Michigan are PFOS and PFOA — part of a suite of roughly 5,000 similar chemicals.

The substances were once widely used in a type of firefighting foam useful for putting out jet fuel fires, as well as in consumer products such as Scotchguard, Teflon, furniture and even cosmetics. They have now been linked to cancer and liver and thyroid problems.

Firefighting foam used in training procedures at the base leached into the soil and underground water, spreading off base. For years, the Air Force also had dumped untreated water containing the pollution into Van Etten Creek, which flows into Van Etten Lake and eventually Lake Huron, according to officials at the Michigan Department of Environment, Great Lakes and Energy (EGLE).

State officials have not found concerning PFAS levels in Lake Huron, but pollution is far above health advisory standards in the lake and creek.

Henderson said the Air Force is acting as quickly as it can.

“That process, unfortunately, takes a lot of time,” he told frustrated Oscoda residents during the Wednesday public comment session.

“In some cases, we’re just constrained by the laws of physics and the time it takes to get this done,” Henderson said. “It’s frustrating for us, too. I wish it could go faster. On the other hand, I don’t want to rush to failure. If there is an opportunity to go faster, we certainly will.”

EPA’s role

Meanwhile, the U.S. Environmental Protection Agency (EPA) has proposed weaker cleanup standards at hazardous waste sites following pressure from the U.S. Defense Department.

In the years to come, the Air Force may have to contend with pollution from firefighting foam not just in Michigan, but in 401 known facilities where it was used across the country, according to a U.S. Government Accountability Office (GAO) report.

The Pentagon suggested in a report last year that 380 parts per trillion is an acceptable maximum cleanup threshold, the New York Times reported.

The U.S. Department of Health and Human Services’ Agency for Toxic Substances and Disease Registry has suggested a safety threshold at levels about 30 times lower than that.

The EPA set an advisory level of 70 ppt, and is seeking to codify that number in order to compel cleanups where levels exceed it.

One part per trillion is equivalent to one drop in 20 Olympic size swimming pools.

Peters, who sits on the U.S. Senate Armed Services Committee, criticized the Air Force’s timeline when speaking with reporters after the Oscoda community meeting Wednesday.

"I don't think four more years is acceptable to anyone; folks have been waiting too long," he said. "But I think there's also a recognition that you have to do the job right ... so we don't have to come back here later and do more, and also the taxpayers want to make sure the job is being done efficiently."

Peters said the Air Force could act quicker if EPA standards were tougher. But he also said that he trusted that Henderson "will move as quickly as the science and engineering allows him to do that."

The EPA plans to announce a new maximum contaminant level for PFOS and PFOA by the end of the year, Acting EPA Administrator Andrew Wheeler said in February. He said the 70 ppt advisory level "is a safe level for drinking water."

Once set, the standard will be enforceable under the federal Safe Drinking Water Act.

The process began under former EPA Administrator Scott Pruitt and has dragged on into Wheeler's tenure. That's vexed bipartisan critics like U.S. Reps. Dan Kildee (D-Flint) and Brian Fitzpatrick (R-Pa.), co-chairs of the Congressional PFAS Task Force, who say the agency should act faster.

Some critics, including Steve Sliver, who directs Michigan's PFAS response team, say the Air Force could take immediate interim actions to clean up contamination before the years-long federal review process is complete.

"There's not many barriers to interim measures that can't be overcome, and they have been doing some," Sliver said. "We think they could do more, quicker. And we've been very open about that and we'll continue to offer our help."

Worried residents

Anthony Spaniola, an attorney who owns property on the polluted Van Etten Lake in Oscoda, said he thinks the Air Force is making "a conscious decision ... to spend as little money as possible" because of the significant cost to clean up PFAS contamination at Air Force bases nationwide.

In the meantime, other local residents are aggravated and worried.

Edward Davison Jr., 83, owns 210 acres next to the base in Oscoda and laments that he can no longer rent out his property to hunters and anglers who fear the contamination. He said he wants action, not more analysis.

"These guys have been screwing around with Wurtsmith for 30 years," he said. "They know where the foams are."

Davison said he's tired of officials dragging their feet.

"I'm upset that my government would act like a bunch of jerks," he declared. "Nobody's asking for money. All they wanna do is get it cleaned up."

Sheila Bierlein, a 33-year-old bartender, said she can't plant a vegetable garden at her home because of the pollution. And she said she worries about her two young children.

"It's always in the back of my mind because my kids — they're going to grow up [swimming] in this water," Bierlein said between pouring cocktails and beers for the few locals coming into the Edelweiss Tavern on Wednesday night.

Bierlein added that she's lived here for the past 11 years.

"So it's like, are my kids going to grow up and have a health issue?" she wondered. "But, like I said, I can't stop my kids from living a normal life, either."

The National Law Review

EPA Publishes Draft Screening and Remediation Recommendations for Groundwater Contaminated with PFOA and PFOS

<https://www.natlawreview.com/article/epa-publishes-draft-screening-and-remediation-recommendations-groundwater>

Nessa Horewitch Coppinger, Sarah Munger

Posted: April 29, 2019

On April 25, 2019, the EPA published [draft interim recommendations](#) for screening and clean-up levels for groundwater contaminated with perfluorooctanoic acid (PFOA) and/or perfluorooctane sulfonate (PFOS). The draft recommendations apply to sites that are evaluated under federal clean-up programs, like CERCLA or RCRA.

EPA recommends a screening level of 40 parts per trillion (ppt) for PFOA and PFOS. Screening refers to the process of identifying and defining the areas, contaminants, and conditions at a site that may require further attention. It is not a cleanup level.

When PFOA and PFOS are below the screening level, generally no further action or study will be required. Even if levels are greater than 40 ppt, additional clean-up may not be necessary but further investigation will be warranted. EPA based its recommended screening level of 40 ppt on three factors:

1. The specific and limited purpose of a screening level.
2. The additive toxicity of PFOA and PFOS.
3. The possibility that other PFAS compounds, which may be toxic but for which toxicity values may not currently be available, may be co-located with PFOA and/or PFOS.

For the first time, EPA used a drinking water health advisory to inform its recommended preliminary remediation goal (PRG). EPA based its recommended PRG of 70 ppt for contaminated groundwater that is or has the potential to be drinking water on the Lifetime Drinking Water Health Advisory of 70 ppt for PFOA and PFOS.

PRGs represent levels that EPA believes, based on the best available science and preliminary site information, are protective of human health and the environment. PRGs are based on applicable or relevant and appropriate requirements (ARAR) (e.g. maximum contaminate levels) where available. EPA recommends using the PRG of 70 ppt where state or tribal laws do not have qualifying ARARs. EPA's draft recommendations recognize that PRGs are often modified to ensure that clean-up is protective of human health and the environment.

The public [may comment on the draft guidance](#) through June 10, 2019. EPA specifically invites comment on its use of the Lifetime Drinking Water Health Advisory level of 70 ppt as the recommend PRG.

Toxic Chemicals

American Legal News

EPA's Proposed Toxic Chemical Regulations Criticized As Too Weak

<https://americanlegalnews.com/epas-proposed-toxic-chemical-regulations-criticized-as-too-weak/>

Andrew Bare

Posted: April 29, 2019

For years, scientists and environmental activists have been pushing the Environmental Protection Agency to strictly regulate the [family of fluorinated chemicals](#) known as per- and polyfluoroalkyl substances (PFAS). These chemicals have been infiltrating soil and groundwater in locations across the country.

The EPA finally took the first step in April, releasing [draft interim regulations](#) designed to provide the initial regulatory guidelines for addressing these potentially dangerous chemicals. Chemical regulations require an involved process and the EPA is still a long way from finalizing any new restrictions.

However, environmental groups were dismayed by the details of these recommendations, as the thresholds recommended by EPA were far less stringent than activists hoped. In fact, the EPA's proposed benchmarks for PFAS were higher than those set by several states.

These groups are calling on the public to make their concerns known during the EPA's public comment period, which extends until June 10. Meanwhile, scientists have their work cut out for them in studying the danger of this nearly ubiquitous class of chemicals.

What Are PFAS?

"PFAS" is an umbrella term referring to a [group](#) of thousands of different chemicals that exist within the same family. They are exceptionally popular and can be found in a massive range of products. Because these chemicals are resistant to water and stains and have impressive non-stick properties, they are a crucial component of carpeting, non-stick cookware, furniture, food packaging and firefighting foam – PFAS are particularly popular with the military, which uses them for a range of purposes at a number of military bases spread across the world.

Due to this popularity, PFAS can be found in soil and groundwater across the country. Almost every American has some level of these chemicals inside their blood. Scientists, however, are growing concerned about what that might mean for our health and well-being.

There remain a host of important unanswered questions regarding the danger level of these chemicals. PFAS are often referred to as "forever chemicals" since they don't break down easily. This ensures they stay in soil and groundwater – and even the human body – far longer than most chemicals.

Because this family of chemicals is so vast, studies of them have been slow going. However, early studies – many conducted as part of a lawsuit related to PFAS exposure in Ohio and West Virginia – have found a link between long-term exposure to the chemicals and serious health problems, including kidney cancer and thyroid disease.

The research is still in its early stages. Scientists are studying, among other things, how these chemicals move in the human body.

Disappointing Standards

Activists anxiously awaited the EPA's interim draft standards, which represent the first step in a much longer process of regulating PFAS. They were disappointed when the standards were released.

The EPA recommended a screening level of 40 parts per trillion – a “screening level” is a threshold which necessitates further investigation at a given site. The threshold for a groundwater site cleanup would be 70 parts per trillion.

The Environmental Working Group blasted these recommendations as “woefully inadequate,” while Harvard researcher Laurel Schaider said the proposal represented a “drop in the bucket.”

The EPA's recommendations came in much higher than the levels proposed by several states currently undergoing PFAS crises. Michigan, New York, New Jersey, California, Minnesota, Vermont and Massachusetts have all proposed lower thresholds for the chemicals affected by the EPA recommendations.

This prompted the National Resources Defense Council to argue that the “EPA has failed to carry out its duty....”

The Trump Administration's EPA has made it a point of pride to disappoint environmental activists with its regulatory decisions. Public comment on the PFAS proposal will be open until June 10. Environmental groups plan to submit strongly critical comments and have urged citizens to do the same.

Chemical Watch

Court orders US EPA to revisit CBI substantiation

<https://chemicalwatch.com/76954/court-orders-us-epa-to-revisit-cbi-substantiation>

Kelly Franklin

Posted: April 29, 2019

A US court has ordered the EPA to revisit how it requires substantiation of confidentiality claims under TSCA, as the result of an NGO lawsuit. And according to the petitioning organisation's attorney, this will result in companies needing to provide “significantly more evidence” before they can protect as confidential the identity of a substance.

The US Court of Appeals for the DC Circuit issued a 26 April order on the Environmental Defense Fund's 2017 legal challenge to the EPA's final inventory notification (inventory reset) rule, EDF v EPA.

In the case, the EDF challenged:

- the EPA's failure to include a substantiation question addressing whether a substance's identity could be determined through reverse engineering;
- that a company could “maintain” an existing confidentiality claim even if it was not the original claimant;
- the agency's omission of certain confidentiality requirements in the rule;
- a failure to implement provisions related to the application of ‘unique identifiers’; and
- the notification exemption for exported chemicals.

With respect to all but the first item, the court upheld the EPA's rule, on the grounds that it was not "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law" – the standard of review for this type of case.

But the court agreed with the EDF that the agency's rule "comes up short" on the requirement that companies substantiate that a confidential chemical identity is not "readily discoverable through reverse engineering".

As a result, the court has ordered the EPA to "address its arbitrary elimination" of substantiation questions regarding reverse engineering. But it otherwise denied the EDF's petition for review.

Court's position

Under the 2016 amendments to TSCA, the identity of a chemical substance can be withheld as confidential if four specific criteria are met.

In its ruling, the court noted that the original proposed inventory reset rule – floated under the Obama administration in 2017 – included more than twenty substantiation questions, including questions related to each of these four statutorily required assertions.

But by the agency's own admission, the court's decision says, the final rule sets forth an "extensively re-written" list, which scrapped all questions related to the requirement that a substance's identity not be susceptible to reverse engineering.

And this omission, it says, "effectively excised a statutorily required criterion from the substantiation process," it said.

"The EPA's rule offers no sensible explanation at all for that gap in substantiation, nor does it even acknowledge the consequence of its omission," it added. "That error is fatal."

Outside of this provision, however, the court generally gave the agency deference to how it had interpreted the statute.

For example, it said that the EPA "acted well within its discretion" in concluding that any manufacturer or processor of a chemical can file a claim to maintain confidentiality, regardless of whether that company was the original claimant.

'Significant win'

Robert Stockman, EDF senior attorney, hailed the decision as a "significant win for public disclosure".

"EPA will now have to require significantly more evidence from companies before they can conceal the identities of chemicals they make and sell," Mr Stockman said.

"As a result, fewer such claims will be allowed."

But the American Chemistry Council's deputy general counsel, Allison Starmann, said the group is "disappointed that some activist NGOs continue to consume the resources of the agency that could otherwise be dedicated to effective and efficient implementation of the law."

Ms Starmann said the ACC was pleased that the court denied the majority of the petitioner's challenges, which she said is a "clear sign that EPA's approach is consistent with the statute and congressional intent".

Implications

The court's decision will require the EPA to revisit its final notification rule through a formal notice and comment process. But the ruling also has implications for the agency's recent proposed rule that lays out a procedure for substantiating and reviewing confidentiality claims under the reformed TSCA.

The proposal, like the inventory notification rule, does not include a substantiation question addressing reverse engineering. And the EDF's Richard Denison told Chemical Watch that this is an omission that will need to be remedied, which he said should be done by re-proposing the rule.

Dr Denison also pointed out that there are companies that already provided CBI substantiation during the inventory notification process. And these, he said, will likely need to re-substantiate their claims, because the questions they responded to have been deemed inadequate by the court.

Also of note is that the court disagreed with the EPA's arguments that the EDF did not have legal standing to bring the case. In order to meet this bar, the NGO had to "demonstrate that it has suffered a concrete and particularised injury in fact that is both fairly traceable to the EPA's action and likely to be redressed by a favourable judicial decision". To this end, the court said "the law is settled" that denial of access to information qualifies as an injury in fact. This interpretation may send encouraging signals to NGOs seeking to challenge other aspects of TSCA in court.

A spokesperson for the EPA said it is currently reviewing the DC Circuit's decision and then will determine next steps.

Chemical Watch

Senators urge EPA to extend methylene chloride protection to workers

<https://chemicalwatch.com/76911/senators-urge-epa-to-extend-methylene-chloride-protection-to-workers>

Lisa Martine Jenkins

Posted: April 29, 2019

Twenty-two US Senate Democrats have written to EPA Administrator Andrew Wheeler and agency toxics head Alexandra Dunn, expressing concern at the decision to exclude commercial uses from the methylene chloride ban the agency announced in March. In the 26 April letter, the senators urge the agency to finalise a more comprehensive ban. The move comes hot on the heels of a lawsuit jointly filed by five NGOs and two mothers whose sons died after using the substance.

Methylene chloride is a solvent commonly used in paint strippers. The EPA's own 2014 assessment of the substance concluded that it can cause harm to the central nervous system, liver and kidney toxicity and cancer. Since a ban was proposed in January 2017, there have been a number of deaths associated with exposure to the substance. The announcement that the final rule will not cover commercial uses resulted in protests from both Democratic lawmakers and NGOs.

Meanwhile, the EPA has looked for feedback on its advanced notice of proposed rulemaking (ANPRM) for a programme of "training, certification, and limited access requirements", aimed at mitigating the substance's risk.

However, the senators – led by Chuck Schumer (D-New York), Tom Carper (D-Delaware) and Tom Udall (D-New Mexico) – write in their letter that the "failure to protect commercial users of methylene chloride in its ban is likely to lead to more illnesses and deaths that are entirely preventable".

They also argue that the methylene chloride rule flies in the face of the 2016 updates to TSCA, which specifically charges the agency with protecting "potentially exposed or susceptible subpopulations". They cite the EPA's own determination

that workers are particularly vulnerable to the substance's risks, and encourage it to withdraw the ANPRM and finalise an across-the-board ban on the substance.

"Given the dozens of deaths of workers, among even those who had been properly equipped and trained to protect themselves against methylene chloride exposure, EPA's failure to protect commercial users of methylene chloride in its ban is likely to lead to more illnesses and deaths that are entirely preventable," the letter continues.

The EPA will accept comments on the worker training ANPRM until 28 May.

Reuters

EPA, EDF split win in D.C. Circuit fight over chemical notification rules

<https://www.reuters.com/article/toxic-substance-lawsuit/epa-edf-split-win-in-dc-circuit-fight-over-chemical-notification-rules-idUSL1N22B0C0>

Barbara Grzincic

Posted: 8:58am, April 29, 2019

The Environmental Defense Fund's challenge to rules implementing the 2016 amendments to the Toxic Substances Control Act met with mixed results on Friday, as a federal appeals court upheld most of the provisions adopted by the Environmental Protection Agency.

The U.S. Circuit Court of Appeals for the District of Columbia agreed with the EDF on just one of its five objections to the Inventory Notification Requirements rule, in which the Environmental Protection Agency spelled out its procedure for updating its outdated inventory of chemicals manufactured or processed in the United States.

To read the full story on Westlaw Practitioner Insights, click here: bit.ly/2WcbRNx